

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Israel, et al.  
Title: OPTIMAL SILICON DIOXIDE PROTECTION LAYER THICKNESS FOR SILVER LAMP  
REFLECTOR  
Serial No.: Not Assigned Yet  
Art Unit: Not Assigned Yet  
Filing Date: Herewith  
Examiner: Not Assigned Yet  
Date: August 1, 2003  
Atty. Dkt. No.: LDHQ10695-3 (GECZ 2 00083-2-3)

INFORMATION DISCLOSURE STATEMENT

Mail Stop – Patent Application

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

The following are submitted in the above application in compliance with 37 CFR 1.97 and 37 CFR 1.98.

1. A list of documents on Form PTO-1449 or Substitute together with copies of each identified document and a translation thereof or a concise explanation of each non-English language document or a Search Report or communication from a non-US patent office or an International Search Report from an International Searching Authority for a patent application filed via the Patent Cooperation Treaty or document(s) cited in the application or the priority application.

This paper is submitted in accordance with:

2. 37 CFR 1.97(b): [within three months of national, non-CPA filing, prior to first Office Action, on the merits, or prior to first office action after filing an RCE]

3. 37 CFR 1.97(c): [before Final Office Action, Allowance, or other action closing prosecution, whichever is earlier]; and

a. The required Certification made in item 5 below; or

b. The \$180.00 fee specified in 37 CFR 1.17(p) for submission of this Information Disclosure Statement is authorized in item 6 below.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 as Express Mail No. EV341149075US on Aug. 1, 2003 and is addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

By Chery Kobylinski  
Cheryl Kobylinski

Date: 8/1/2003

[ ] 4. 37 CFR 1.97(d): [on or before issue fee payment]; and

- The required Certification is stated in item 5 below; and
- The \$180.00 fee specified in 37 C.F.R. 1.17(p) for submission of this Information Disclosure Statement is authorized in item 6 below.

[ ] 5. Certification

- Each item of information contained in this Statement was first cited in any communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of this Statement; or
- No item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application and, to the knowledge of the person signing this document after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated in 37 CFR 1.56(c) more than three (3) months prior to the filing date of this Statement.

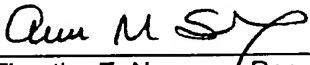
[ ] 6. Payment of all applicable fees:

- Please charge all applicable fees associated with the submittal of this Information Disclosure Statement to Deposit Account No. \_\_\_\_\_.
- Enclosed is a check in the amount of \$\_\_\_\_\_ in payment of all applicable fees associated with the submittal of this Information Disclosure Statement.

This document is submitted in duplicate.

Respectfully submitted,

**FAY, SHARPE, FAGAN,  
MINNICH & McKEE, LLP**

  
\_\_\_\_\_  
Timothy E. Nauman, Reg. No. 32,283  
Ann M. Skerry, Reg. No. 45,655

Address: 1100 Superior Avenue  
Seventh Floor  
Cleveland, OH 44114  
(216) 861-5582

|  |   |                              |
|--|---|------------------------------|
| Subst. Form PTO-1449                             | Atty. Docket No.: LDHQ10695-3<br>GECZ 2 00083-2-3 | Serial No.: Not Assigned Yet |
| APPLICANT'S(S') INFORMATION DISCLOSURE STATEMENT | Applicant(s): Israel, et al.                      |                              |
|  | Filing Date: Herewith                             | Group: Not Assigned Yet      |

## U.S. PATENT DOCUMENTS

| Initial * |    | Document No. | Date    | Name                | Class | Subcl. | Filing Date |
|-----------|----|--------------|---------|---------------------|-------|--------|-------------|
|           | AA | 3,010,045    | 05/1955 | Plagge, et al.      |       |        |             |
|           | AB | 3,687,713    | 03/1971 | Adams               |       |        |             |
|           | AC | 4,009,947    | 03/1977 | Nishida, et al.     |       |        |             |
|           | AD | 4,160,929    | 07/1979 | Thorington, et al.  |       |        |             |
|           | AE | 4,211,803    | 07/1980 | Cowher, et al.      |       |        |             |
|           | AF | 4,238,704    | 12/1980 | Bonk, et al.        |       |        |             |
|           | AG | 4,272,588    | 06/1981 | Yoldas, et al.      |       |        |             |
|           | AH | 4,346,324    | 08/1982 | Yoldas              |       |        |             |
|           | AI | 4,425,606    | 01/1984 | Shanks, et al.      |       |        |             |
|           | AJ | 4,435,445    | 03/1984 | Allred, et al.      |       |        |             |
|           | AK | 4,448,855    | 05/1984 | Senaha, et al.      |       |        |             |
|           | AL | 4,467,238    | 08/1984 | Silverstein, et al. |       |        |             |
|           | AM | 4,482,209    | 11/1984 | Grewal, et al.      |       |        |             |
|           | AN | 4,508,054    | 04/1985 | Baumberger, et al.  |       |        |             |
|           | AO | 4,547,432    | 10/1985 | Pitts, et al.       |       |        |             |

## FOREIGN PATENT DOCUMENTS

|  |    | Document No. | Date | Country | Class | Subcl. | Translation |
|--|----|--------------|------|---------|-------|--------|-------------|
|  | AP |              |      |         |       |        |             |
|  | AO |              |      |         |       |        |             |

## OTHER ART

|  |     |   |
|--|-----|---|
|  | AR1 | D.K. Burge, et al., "Effect of Atmospheric Exposure on the Infrared Reflectance of Silvered Mirrors With and Without Protective Coatings," <i>Applied Optic</i> , Vol. 12, No. 1, pp. 42-47 (1973)  |
|  | AR2 | Gulino, et al., "Chemical Vapor Deposited Silica Coatings for Solar Mirror Protection," Prepared for 26th Aerospace Sciences Meeting sponsored by the American Institute of Aeronautics and Astronautics, Reno, Nevada, pp.1-8 (January 1988) |

|           |                  |
|-----------|------------------|
| Examiner: | Date Considered: |
|-----------|------------------|

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if in conformance and not considered. Include copy of this form with next communication to applicant.

|   |   |                              |
|---|---|------------------------------|
| Subst. Form PTO-1449<br><br>APPLICANT'S(S') INFORMATION<br>DISCLOSURE STATEMENT | Atty. Docket No.: LDHQ10695-3<br>GECZ 2 00083-2-3 | Serial No.: Not Assigned Yet |
|   | Applicant(s): Israel, et al.                      |                              |
|   | Filing Date: Herewith                             | Group: Not Assigned Yet      |

## U.S. PATENT DOCUMENTS

| Initial * |    | Document No. | Date    | Name              | Class | Subcl | Filing Date |
|-----------|----|--------------|---------|-------------------|-------|-------|-------------|
|           | BA | 4,685,110    | 08/1987 | DeBell, et al.    |       |       |             |
|           | BB | 4,701,663    | 10/1987 | Kawakatsu, et al. |       |       |             |
|           | BC | 4,959,583    | 09/1990 | Arsena, et al.    |       |       |             |
|           | BD | 4,987,343    | 01/1991 | Kosmatka, et al.  |       |       |             |
|           | BF | 5,076,663    | 12/1991 | Arendt, et al.    |       |       |             |
|           | BF | 5,143,445    | 09/1992 | Bateman, et al.   |       |       |             |
|           | BG | 5,177,396    | 01/1993 | Geilen, et al.    |       |       |             |
|           | BH | 5,440,469    | 08/1995 | Gomes             |       |       |             |
|           | BI | 5,825,565    | 10/1998 | Papenburg, et al. |       |       |             |
|           | BJ | 6,146,002    | 11/2000 | Danapilis, et al. |       |       |             |
|           | BK | 6,382,816    | 05/2002 | Zhao, et al.      |       |       |             |
|           | BL | 6,416,194    | 07/2002 | Demiryont         |       |       |             |

## FOREIGN PATENT DOCUMENTS

|  |    | Document No. | Date | Country | Class | Subcl | Translatio n? |
|--|----|--------------|------|---------|-------|-------|---------------|
|  | BM |              |      |         |       |       |               |

## OTHER ART

|  |     |  |
|--|-----|--|
|  | BN1 | G. Hass, et al., "Reflectance and durability of Ag mirrors coated with thin layers of $Al_2O_3$ plus reactively deposited silicon oxide," <i>Applied Optics</i> , Vol. 14, No. 11, pp. 2639-2644 (1975). |
|  | BN2 | Elvedin Sirbegovic et al., "An Investigation of the durability of front surface Ag mirrors using oxide protecting layers," <i>Vacuum</i> , Vol. 43, No. 5-7, pp. 763-765 (1992)                          |
|  | BN3 | P. Hollingsworth Smith and H. Gurev, "Silicon Dioxide as a High Temperature Stabilizer for Silver Films*", <i>Thin Solid Films</i> , 45, pp. 159-168 (1977)  |

Examiner:

Date Considered:

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if in conformance and not considered. Include copy of this form with next communication to applicant.